

**SPECIFICATION:** *We would like to insert in the current published US specification the following matter after paragraph 55 prior to the Industrial Applicability section:*

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The following methods, devices and use are described:

A method number 1 to communicate or control a remote deexcitation by using isomer nuclides, in which:

- one prepares two or several samples containing at least one isomer nuclide having a metastable state by irradiation with the means of either a source of gamma rays emitted in a cascade, or a generator of gamma rays coming from Bremsstrahlung of accelerated particles, with a sufficient energy to excite the aforementioned isomer nuclide in its metastable state,
- one causes the modulated stimulation of the deexcitation by X-ray or gamma irradiation of one or more of the aforementioned samples, the masters,

characterized in that one obtains an additional modulated deexcitation of the other samples, the slaves, during the modulated stimulation of the deexcitation of the master samples, independently of the distances separating the samples, and of the mediums separating these samples or in which they are placed.

A method number 2 according to method number 1 characterized in that one uses samples containing at least one isomer nuclide having a half-life duration of one metastable state from less than one second to several years, for example: Niobium ( $^{93}\text{Nb}41\text{m}$ ), Cadmium ( $^{111}\text{Cd}48\text{m}$ ), Cadmium ( $^{113}\text{Cd}48\text{m}$ ), Cesium ( $^{135}\text{Ce}55\text{m}$ ), Indium ( $^{115}\text{In}49\text{m}$ ), Tin ( $^{117}\text{Sn}50\text{m}$ ), Tin ( $^{119}\text{Sn}50\text{m}$ ), Tellurium ( $^{125}\text{Te}52\text{m}$ ), Xenon ( $^{129}\text{Xe}54\text{m}$ ), Xenon ( $^{131}\text{Xe}54\text{m}$ ), Hafnium ( $^{178}\text{Hf}72\text{m}$ ), Hafnium ( $^{179}\text{Hf}72\text{m}$ ), Iridium ( $^{193}\text{Ir}77\text{m}$ ), Platinum ( $^{195}\text{Pt}78\text{m}$ ).

A method number 3 according to one of the methods number 1 or 2 characterized in that one uses samples containing several excited isomer nuclides of which the gamma response of each one of them is measured simultaneously.

A method number 4 according to anyone of the methods number 1, 2 or 3 characterized in that one uses samples containing at least one excited isomer nuclide of which the gamma response is made up of a several lines measured simultaneously.

A method number 5 according to anyone of the methods number 1, 2, 3 or 4 characterized in that one uses samples in various physical forms or various chemical forms.

A method number 6 according to anyone of the methods number 1, 2, 3, 4 or 5 characterized in that one uses a group of samples of which one at least underwent a physical or a chemical transformation after irradiation.

A method number 7 according to anyone of the methods number 1, 2, 3, 4, 5 or 6 characterized in that one uses a stimulation modulated in amplitude on at least one master sample.

A method number 8 according to anyone of the methods number 1, 2, 3, 4, 5, 6 or 7 characterized in that one uses a stimulation modulated in the time on at least one master sample.

A device number 9 of implementation of the method according to anyone of the methods number 1 to 8 characterized in that it includes:

- An apparatus of excitation irradiating two or several samples containing at least one isomer nuclide having one metastable state by either a source of gamma rays emitted in a cascade, or of a generator of gamma rays coming from the Bremsstrahlung of accelerated particles, with a sufficient energy to excite the aforementioned isomer nuclide to its metastable state,
- one or several apparatuses of modulated stimulation deexciting by X-rays or gamma irradiation one or several of the samples irradiated previously, the master or the masters,
- one or several apparatuses of detection measuring the gamma rays emitted by one or more of the other samples irradiated previously, the slave or the slaves.

A device number 10 according to method number 9 characterized in that the samples of each group are placed on only one support in the apparatus of excitation, thereafter being separated and being positioned in relation between each other in one or more apparatuses of modulated stimulation and in one or more apparatuses of detection.

A device number 11 according to method number 9 characterized in that the samples of each group are placed on several supports in the apparatus of excitation, the supports

being separated and being thereafter positioned in synchronous relation between each other in one or more apparatuses of modulated stimulation and in one or more apparatuses of detection.

A device number 12 according to one of the methods number 9, 10 or 11 characterized in that the groups of samples are arranged according to a defined scheduling allowing the transmission of complex messages.

A Use number 13 of the method according to anyone of the methods number 1 to 8 to remotely transmit information, in particular emergency signals.

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